

CLAIMS

What is claimed and desired to be covered by Letters Patent is as follows:

1. A material and article holding rack comprising:
 - a) a frame unit which includes
 - (1) a first post which is a first front end post when said frame unit is in a use orientation, the first post including a first end which is a bottom end when said frame unit is in the use orientation, a second end which is a top end when said frame unit is in the use orientation, a longitudinal axis extending between the first end of the first post and the second end of the first post, a first side, a second side, a width dimension which extends between the first side of the first post and the second side of the first post, the width dimension of the first post extending transverse to the longitudinal axis of the first post, a plurality of first fastener- accommodating holes defined from the first side of the first post to the second side of the first post in the

direction of the width dimension of the first post, the first fastener-accommodating holes of the first post being spaced apart from each other in the direction of the longitudinal axis of the first post, a plurality of second fastener-accommodating holes defined from the first side of the first post to the second side of the first post in the direction of the width dimension of the first post, the second fastener-accommodating holes of the first post being located adjacent to the first end of the first post and being spaced apart from each other in the direction of the longitudinal axis of the first post, a plurality of third fastener-accommodating holes defined from the first side of the first post to the second side of the first post in the direction of the width dimension of the first post, the third fastener-accommodating holes of the first post being located adjacent to the second end of the first post and being spaced apart from each other in the direction of the longitudinal axis of the first post,

(2) a second post which is a second front end post when said frame unit is in the use orientation, the second post including a first end which is a bottom end when said frame unit is in the use orientation, a second end which is a top end when said frame unit is in the use orientation, a longitudinal axis extending between the first end of the second post and the second end of the second post, a first side, a second side, a width dimension which extends between the first side of the second post and the second side of the second post, the width dimension of the second post extending transverse to the longitudinal axis of the second post, a plurality of first fastener accommodating holes defined from the first side of the second post to the second side of the second post in the direction of the width dimension of the second post, the first fastener-accommodating holes of the second post being spaced apart from each other in the direction of the longitudinal axis of the second post, a plurality of second fastener-accommodating

holes defined from the first side of the second post to the second side of the second post in the direction of the width dimension of the second post, the second fastener-accommodating holes of the second post being located adjacent to the first end of the second post and being spaced apart from each other in the direction of the longitudinal axis of the second post, a plurality of third fastener-accommodating holes defined from the first side of the second post to the second side of the second post in the direction of the width dimension of the second post, the third fastener-accommodating holes of the second post being located adjacent to the second end of the second post and being spaced apart from each other in the direction of the longitudinal axis of the second post,

(3) a third post which is a first rear end post when said frame unit is in the use orientation, the third post including a first end which is a bottom end when said frame unit is in the use orientation, a second end which is a top end when said frame unit is in

the use orientation, a longitudinal axis extending between the first end of the third post and the second end of the third post, a first side, a second side, a width dimension which extends between the first side of the third post and the second side of the third post, the width dimension of the third post extending transverse to the longitudinal axis of the third post, a plurality of first fastener- accommodating holes defined from the first side of the third post to the second side of the third post in the direction of the width dimension of the third post, the first fastener-accommodating holes of the third post being spaced apart from each other in the direction of the longitudinal axis of the third post, a plurality of second fastener-accommodating holes defined from the first side of the third post to the second side of the third post in the direction of the width dimension of the third post, the second fastener-accommodating holes of the third post being located adjacent to the first end of the

third post and being spaced apart from each other in the direction of the longitudinal axis of the third post, a plurality of third fastener-accommodating holes defined from the first side of the third post to the second side of the third post in the direction of the width dimension of the third post, the third fastener-accommodating holes of the third post being located adjacent to the second end of the third post and being spaced apart from each other in the direction of the longitudinal axis of the third post,

- (4) a fourth post which is a second rear end post when said frame unit is in the use orientation, the fourth post including a first end which is a bottom end when said frame unit is in the use orientation, a second end which is a top end when said frame unit is in the use orientation, a longitudinal axis extending between the first end of the fourth post and the second end of the fourth post, a first side, a second side, a width dimension which extends between the first side of the fourth post and the second

side of the fourth post, the width dimension of the fourth post extending transverse to the longitudinal axis of the fourth post, a plurality of first fastener-accommodating holes defined from the first side of the fourth post to the second side of the fourth post in the direction of the width dimension of the fourth post, the first fastener-accommodating holes of the fourth post being spaced apart from each other in the direction of the longitudinal axis of the fourth post, a plurality of second fastener-accommodating holes defined from the first side of the fourth post to the second side of the fourth post in the direction of the width dimension of the fourth post, the second fastener-accommodating holes of the fourth post being located adjacent to the first end of the fourth post and being spaced apart from each other in the direction of the longitudinal axis of the fourth post, a plurality of third fastener-accommodating holes defined from the first side of the fourth post to the second side of the fourth post in the direction of

- the width dimension of the fourth post, the third fastener-accommodating holes of the fourth post being located adjacent to the second end of the fourth post and being spaced apart from each other in the direction of the longitudinal axis of the fourth post,
- (5) a first side beam which is a bottom beam when said frame unit is in the use orientation, the first side beam including a first end which is located adjacent to the first end of the first post, a second end which is located adjacent to the first end of the fourth post, a longitudinal axis which extends between the first end of the first side beam and the second end of the first side beam, a first surface which is a top surface when said frame unit is in the use orientation, a first side surface, and a second surface,
- (6) a second side beam which is a bottom beam when said frame unit is in the use orientation, the second side beam including a first end which is located adjacent to the first end of the second post, a second end which is located adjacent to the first end of the

third post, a longitudinal axis which extends between the first end of the second side beam and the second end of the second side beam, a first surface which is a top surface when said frame unit is in the use orientation, a first side surface, and a second side surface,

(7) a third side beam which is a top beam when said frame unit is in the use orientation, the third side beam including a first end which is located adjacent to the second end of the first post, a second end which is located adjacent to the second end of the fourth post, a longitudinal axis which extends between the first end of the third side beam and the second end of the third side beam, a first surface which is a top surface when said frame unit is in the use orientation, a first side surface, and a second surface,

(8) a fourth side beam which is a top beam when said frame unit is in the use orientation, the fourth side beam including a first end which is located adjacent to the second end

- of the second post, a second end which is located adjacent to the second end of the third post, a longitudinal axis which extends between the first end of the fourth side beam and the second end of the fourth side beam, a first surface which is a top surface when said frame unit is in the use orientation, a first side surface, and a second surface,
- (9) a first cross beam which is a bottom beam when said frame unit is in the use orientation, the first cross beam including a first end fixed to the first end of the first post, a second end fixed to the first end of the second post, a longitudinal axis extending between the first end of the first cross beam and the second end of the first cross beam, and a first surface,
- (10) a second cross beam which is a top beam when said frame unit is in the use orientation, the second cross beam including a first end fixed to the second end of the first post, a second end fixed to the second end of the second post, a longitudinal axis extending between the first end of the second cross

beam and the second end of the second cross beam, and a first surface,

- (11) a third cross beam which is a bottom beam when said frame unit is in the use orientation, the third cross beam including a first end fixed to the first end of the fourth post, a second end fixed to the first end of the third post, a longitudinal axis extending between the first end of the third cross beam and the second end of the third cross beam, and a first surface,
- (12) a fourth cross beam which is a top beam when said frame unit is in the use orientation, the fourth cross beam including a first end fixed to the second end of the fourth post, a second end fixed to the second end of the third post, a longitudinal axis extending between the first end of the fourth cross beam and the second end of the fourth cross beam, and a first surface,
- (13) a support beam having a first end fixed to the fourth post and a second end fixed to the third post,
- (14) a first fastener plate fixed to the first

- side surface of the first side beam adjacent to the first end of the first side beam, the first fastener plate including two fastener-accommodating holes defined therethrough,
- (15) a second fastener plate fixed to the first side surface of the third side beam adjacent to the first end of the third side beam, the second fastener plate including two fastener-accommodating holes defined therethrough,
- (16) a third fastener plate fixed to the first side surface of the second side beam adjacent to the first end of the second side beam, the third fastener plate including two fastener-accommodating holes defined therethrough,
- (17) a fourth fastener plate fixed to the first side surface of the fourth side beam adjacent to the first end of the fourth side beam, the fourth fastener plate including two fastener-accommodating holes defined therethrough,
- (18) a fifth fastener plate fixed to the first side surface of the first side beam adjacent to the second end of the first cross beam, the fifth fastener plate including two fastener-accommodating holes defined

therethrough,

- (19) a sixth fastener plate fixed to the first side surface of the third side beam adjacent to the second end of the third side beam, the sixth fastener plate including two fastener-accommodating holes defined therethrough,
- (20) a seventh fastener plate fixed to the first side surface of the second side beam adjacent to the second end of the second side beam, the seventh fastener plate including two fastener-accommodating holes defined therethrough,
- (21) an eighth fastener plate fixed to the first side surface of the fourth side beam adjacent to the second end of the fourth side beam, the eighth fastener plate including two fastener-accommodating holes defined therethrough,
- (22) two fasteners extending through the fastener-accommodating holes defined through the first fastener plate into the second fastener-accommodating holes of the first post and fixing the first fastener plate to the first post,

- (23) two fasteners extending through the fastener-accommodating holes defined through the second fastener plate into the third fastener-accommodating holes of the first post and fixing the second fastener plate to the first post,
- (24) two fasteners extending through the fastener-accommodating holes defined through the third fastener plate into the second fastener-accommodating holes of the second post and fixing the third fastener plate to the third post,
- (25) two fasteners extending through the fastener-accommodating holes defined through the fourth fastener plate into the third fastener-accommodating holes of the second post and fixing the fourth fastener plate to the second post,
- (26) two fasteners extending through the fastener-accommodating holes defined through the fifth fastener plate into the second fastener-accommodating holes of the fourth post and fixing the fifth fastener plate to the fourth post,

- (27) two fasteners extending through the fastener-accommodating holes defined through the sixth fastener plate into the third fastener-accommodating holes of the fourth post and fixing the sixth fastener plate to the fourth post,
- (28) two fasteners extending through the fastener-accommodating holes defined through the seventh fastener plate into the second fastener-accommodating holes of the third post and fixing the seventh fastener plate to the third post,
- (29) two fasteners extending through the fastener-accommodating holes defined through the eighth fastener plate into the third fastener-accommodating holes of the third post and fixing the eighth fastener plate to the third post,
- (30) said frame unit having a length dimension measured between the first surface of the first cross beam and the first surface of the third cross beam in the direction of the longitudinal axis of the first side beam, and
- (31) said frame unit having a width dimension

measured between the second surface of the first side beam and the second surface of the second side beam in the direction of the longitudinal axis of the first cross beam;

- b) a first tier shelf which includes
- (1) a first side edge fixed to the second surface of the first side beam,
 - (2) a second side edge fixed to the second surface of the second side beam,
 - (3) a first end edge fixed to the first surface of the first cross beam,
 - (4) a second end edge fixed to the first surface of the third cross beam,
 - (5) a first surface which is a top surface when said first tier shelf is in a use orientation,
 - (6) a width dimension that extends between the first side edge of said first tier shelf and the second side edge of said first tier shelf, the width dimension of said first tier shelf being equal to the width dimension of said frame unit, and
 - (7) a length dimension that extends between the first end edge of said first tier self and

the second end edge of said first tier shelf,
the length dimension of said first tier shelf
being equal to the length dimension of said
frame unit;

c) a top tier shelf which includes

- (1) a first end edge,
- (2) a second end edge,
- (3) a first side edge,
- (4) a second side edge,
- (5) a width dimension which extends between the
first side edge of said top tier shelf and
the second side edge of said top tier shelf,
the width dimension of said top tier shelf
being equal to the width dimension of said
frame unit,
- (6) a length dimension which extends between the
first end edge of said top tier shelf and the
second end edge of said top tier shelf, the
length dimension of said top tier shelf being
greater than the length dimension of said
frame unit,
- (7) a first surface which is a top surface when
said top tier shelf is in a use orientation,
- (8) a first fastener-accommodating hole defined in

- said top tier shelf through the first side edge of said top tier shelf adjacent to the second end edge of said top tier shelf,
- (9) a second fastener-accommodating hole defined in said top tier shelf through the second side edge of said top tier shelf adjacent to the second end edge of said top tier shelf,
- (10) a third fastener-accommodating hole defined in said top tier shelf through the first side edge of said top tier shelf near and spaced apart from the first end edge of said top tier shelf, and
- (11) a fourth fastener-accommodating hole defined in said top tier shelf through the second side edge of said top tier shelf near and spaced apart from the first end edge of said top tier shelf;
- d) a first fastener accommodated through one fastener-accommodating hole of the plurality of first fastener-accommodating holes in the fourth post, the first fastener pivotally attaching said top tier shelf to the fourth post;
- e) a second fastener accommodated through one fastener-accommodating hole of the plurality of

first fastener-accommodating holes in the third post, the second fastener pivotally attaching said top tier shelf to the third post;

- f) a third fastener accommodated through one fastener-accommodating hole of the plurality first fastener-accommodating holes in the first post, the third fastener being accommodated in the third fastener-accommodating hole defined in said top tier shelf and attaching said top tier shelf to the first post;
- g) a fourth fastener accommodated through one fastener-accommodating hole of the plurality of first fastener-accommodating holes in the second post, the fourth fastener being accommodated in the fourth fastener-accommodating hole defined in said top tier shelf and attaching said top tier shelf to the second;
- h) a first support chain having a first end fixed to the first side edge of said top tier shelf and a second end;
- i) a second support chain having a first end fixed to the second side edge of said top tier shelf and a second end;
- j) a winding winch unit mounted on said frame unit

and connected to said first support chain and to said second support chain;

- k) an extension platform which includes
 - (1) a first side edge,
 - (2) a second side edge,
 - (3) a first end edge,
 - (4) a second end edge,
 - (5) a width dimension measured between the first side edge of said extension platform and the second side edge of said extension platform, the width dimension of said extension platform being equal to the width dimension of said top tier shelf,
 - (6) a first surface which is a top surface when said extension platform is in a use orientation,
 - (7) the first end edge of said extension platform being fixedly connected to the first end edge of said top tier shelf when said extension platform is in the use orientation; and
- l) a plurality of support wheels which include
 - (1) a first support wheel on the first end of the first post of said frame unit,
 - (2) a second support wheel on the first end of the

- second post of said frame unit,
- (3) a third support wheel on the first end of the
third post of said frame unit, and
 - (4) a fourth support wheel on the first end of the
fourth post of said frame unit.